PCC-10 PC Card LonTalk® Adapter
Models 73200 and 73200R

Description

The PCC-10 PC LonTalk Adapter is a high-performance LONWORKS interface for personal computers equipped with a Type II PC Card (formerly PCMCIA) interface and a compatible operating system. Designed for use in LONWORKS control networks that require a PC to monitor, manage, or diagnose the network, the PCC-10 adapter is ideal for industrial control, building automation, and process control applications. The PCC-10 adapter features an integral FTT-10A twisted pair transceiver, downloadable memory, a network management interface, and plug-and-play capability with Microsoft Windows 95/98/2000 and Windows NT.

Model 73200R is compliant with the European Directive 2002/95/EC on the restriction of the use of certain hazardous substances (RoHS) in electrical and electronic equipment.

Single-ended and special purpose communication port modes are available via a 15-pin connector. Access to LONWORKS bus-style TP/XF-78 and TP/XF-1250 twisted pair channels is accomplished through external transceiver assemblies (referred to as "pods"). The PCC-10 card can also be used with power line, RF, coaxial cable, IR, and fiber optic transceivers, and current-limited +5VDC power is supplied for powering these external pods.

The PCC-10 TP-78 Pod (Model 73250) allows the PCC-10 PC Card to be attached to a TP/XF-78 channel. while the PCC-10 TP-1250 Pod (Model 73251) allows the PCC-10 PC card to be attached to a TP/XF-1250 channel. Echelon manufactures the PCC-10 TP-78 Pod and the PCC-10 TP-1250 Pod ; other pod version may be available from other manufacturers.

The PCC-10 adapter provides both LNS network services interface (NSI) functionality for use with LNS tools, and

▼ Type II PC card for LONWORKS® networks
▼ Plug-and-play capability with Microsoft® Windows® 95/98/2000 and Windows NT®
▼ Downloadable firmware allows updates without accessing or changing hardware
▼ Integral FTT-10A transceiver, external transceiver pods available for TPT/XF-78 and TPT/XF-1250 transceivers
▼ LNS network services interface (NSI) supports LNS applications
▼ CE Mark, U.L. Listed, cU.L. Listed
▼ Network driver for Windows 95/98/2000/XP/Server 2003 and Windows NT available

Microprocessor Interface Program (MIP)-compatible network interface functionality for use with LonManager® API-based tools.

Installation software for the PCC-10 adapter is provided with the LonMaker® Integration Tool, LNS® DDE Server, and LNS Application Developer's Kit software distributions, or may be downloaded from the developer's tool box section of the Echelon web site. It includes a software-based control panel and a software driver for Microsoft Windows 95/98/2000/XP/ Server 2003 and Windows NT. The control panel provides a convenient means of setting and modifying installation parameters, diagnosing card operation, and displaying error messages. The adapter supports plug-and-play operation, simplifying installation.

The LNS network operating system allows any number of installation, maintenance, monitoring, and control devices to exist in a system and to adapt to network configuration changes automatically. Users can reconfigure the system from any user interface device anywhere on the network and ensure that all monitoring and control stations are always up-to-date with respect to the system's configuration. When used with the appropriate software, the LNS network services interface (NSI) functionality of the PCC-10 adapter allows the attached host to run LNS applications.

In both NSI mode and MIP modes, the adapter also permits the host PC to act as a LONWORKS application device, running application-specific programs while the adapter handles lower layer functions such as media access control, collision avoidance, message validation, authentication, and priority processing. The host application, including its network variables, can be changed at any time without modifying the adapter. The PCC-10 adapter combined with the host PC can

also be used with applications that require more processing power, memory, input/output capability, or network variable connections than are provided by the Neuron® Chip alone.

Firmware for the adapter is downloaded from the host PC. This allows the adapter to be updated as new versions of the software and firmware are released, without modifying or physically accessing the PCC-10 adapter. This feature extends the useful service life of the adapter, and minimizes the cost and time associated with software and firmware updates. The PCC-10 card may be used with a variety of cable assemblies, including an ⅛" mini jack and flying lead twisted pair cables.

Specifications

PC Card	Type II PC Card (formerly PCMCIA)
Processor	Neuron 3150® Chip
Processor Input Clock	10MHz
PCC-10 External Cable Connector	15 position Hirose NX30TA-15PAA plug unit with NX-15T-CV or NX-15T-CV1 cover
Optional Cable Assemblies	2-meter, 2-conductor with XLR connector (Switchcraft A3MBAU male) for FT-10 channels;
	2-meter, 2-conductor with flying leads for FT-10 channels;
	2-meter, 14-conductor shielded cable for FT-10 channels or custom pods
Operating Input Voltage	+5VDC ±5%
Operating Input Current	100mA typical, plus pod current
Output Voltage/Current for Pod	+5VDC @ 600mA maximum, current-limited
Host Interrupts	One (under control of socket services software)
Neuron Chip Service Pin Function	Service pin message controlled by host
Configuration State	Displayed on host
Temperature	
Operating	0 to +55° C
Non-operating	-20° to +65° C
Humidity (non-condensing)	5 to 95%RH
Dimensions	54.0mmW x 85.6mmL x 5.0mmH (2.126"W x 3.370"L x 0.196"H)
EMI	FCC Part 15 Level A and EN55022 Level A
Listings	U.L. 1950, CSA C22.2 No. 950, TÜV EN60950, CE Mark, LONMARK

Documentation

The *LONWORKS PCC-10 PC Card User's Guide* may be downloaded from Echelon's web site.

Document	Echelon Part Number
LONWORKS PCC-10 PC Card User's Guide	078-0155-01

Ordering Information

Product	Echelon Model Number
PCC-10 Network Interface	73200, 73200R (RoHS-compliant)
2-conductor cable assembly, XLR connector	78300, 78300R (RoHS-compliant
14-conductor shielded cable assembly	78301, 78301R (RoHS-compliant)
2-conductor cable assembly, flying leads	78302, 78302R (RoHS-compliant)
2-conductor cable with plug	78303, 78303R (RoHS-compliant)
TPT/XF-78 pod	73250
TPT/XF-1250 pod	73251

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